UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,482	10/29/2003	Cheng-Hua Wang	D-19	6972

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EXAMINER
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2163	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 October 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-16</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-16</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Remarks

Applicant's arguments with respect to claims 1-16 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections – 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Sridhar

(US 2003/0221162).

Regarding Claim 1, Sridhar discloses a relational database management system

(See Figure 5 and paragraph 0064) for storing (See paragraphs 0029, 0055, 0060,

0078, 0121, 0133) and analyzing network data (paragraphs 0053, 0056, 0108) stored in

relational tables that describe a set of nodes and links forming a network wherein each

of said nodes represents an object of interest (See paragraph 0176) and each of said

links represents a relationship between two of said nodes (See paragraphs 0077, 0080,

0082), said system comprising, in combination:

- a generic node table (See paragraphs 0058, 0080) containing a plurality

of node table rows each of which contains data describing a given node

in said network (See Figures 9, 10),

- a generic link table (See paragraphs 0050, 0062) containing a plurality of

   link table rows (See Figures 9, 10) each of which contains data

   describing a link between two nodes in said network and identifying (by

   identifier) each of said two nodes (See paragraphs 0126-0134, 0148),

   and

- an application program interface which enables executing application

   programs to create said node table and said link table (See paragraphs

   0021, 0056, 0081, 0091, 0164), to store data describing nodes in said

   node table (See paragraphs 0078, 0121, 0127, 0131, 0133), to store

   data describing links between said nodes in said link table (See

   paragraph 0078), and to perform a plurality of standard operations on the

   data in said node table and said link table (See paragraphs 0008, 0009,

   0048, 0057).

Regarding Claim 2, Sridhar discloses that said network is a logical network (web

page is inherently logical network) (See abstract, and paragraphs 0021, 0079).

Regarding Claim 3, Sridhar discloses that each of said node table rows contains

data specifying a node cost attribute (weight) associated with said given node (See

paragraphs 0051, 0077) and wherein each of said link table rows further contains a link

cost attribute (weight) associated with a link (See paragraphs 0009, 0077, 0094, 0104).

Regarding Claim 4, Sridhar discloses that the standard operations include at

least one path identification procedure for analyzing the said network data to identify a

particular path having one or more stated cost characteristics (See paragraphs 0127, 0132 and 0009, 0077, 0094, 0104).

Regarding Claim 5, Sridhar discloses that said standard operations include at least minimum cost path identification procedure for analyzing the said network data to identify the path that has the minimum total cost from a stated start node to a stated end node (See paragraphs 0127, 0132 and 0009, 0077, 0094, 0104).

Regarding Claim 6, Sridhar discloses that said standard operations include analyzing said network data to identify a path consisting of an alternating sequence of nodes and links having defined characteristics (See paragraphs 0127-0132).

Regarding Claim 7, Sridhar discloses that said system further includes a path table containing a plurality of path table rows each of which contains data describing a path consisting of an alternating sequence of nodes and links (See paragraphs 0127-0132).

Regarding Claim 8, Sridhar discloses that said standard operations include at least one path identification procedure for analyzing said network data to identify a particular path having stated characteristics and for placing information describing said particular path in one of said path table rows (See paragraphs 0127-0132).

Regarding Claim 9, Sridhar discloses that said system further includes a path-link table containing one ordered set of path-link table rows associated with each given path described in said path table, each of said path table rows containing information identifying one link in the sequence of links in said given path (See paragraphs 0126-0134, 0148).

Regarding Claim 10, Sridhar discloses that said standard operations include at least one path identification procedure for analyzing said network data to identify a particular path having stated characteristics and for placing information describing said particular path in one of said path table rows and for placing information describing the sequence of links in said particular path in said path-link table (See paragraphs 0127-0132).

Regarding Claim 11, Sridhar discloses that said standard operations include loading (retrieval, extract data) node and link data into said node and link tables respectively from a database (See paragraphs 0051, 0059, 0045, 0047, 0082).

Regarding Claim 12, Sridhar discloses that said network is a spatial network and wherein each of said node table rows includes a column (See Figures 9, 10) for storing the identification of a geometry object (See Figures 1, 2), which specifies the shape and location of one of said nodes.

Regarding Claim 13, Sridhar discloses that each of said link table rows includes a column for storing the identification (ID) (See Figures 9, 10) of a geometry object (See Figures 1, 2) which specifies the geometry of one of said links.

Regarding Claim 14, Sridhar discloses that each of said link table rows includes a column for storing the identification (ID) (See Figures 9, 10) of a geometry object (See Figures 1, 2), which specifies, the shape and location of one of said links.

Regarding Claim 15, Sridhar discloses that each of said node table rows further contains a level column for holding a hierarchy level (See paragraphs 0068, 0113, 0174, 0177, 0178 and Figure 13).

Regarding Claim 16, Sridhar discloses that each of said node table rows further contains a parent column for holding the identification of a parent node within the hierarchy established by said level column (See paragraphs 0068, 0113, 0174, 0177, 0178 and Figure 13).

Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Koskas (6,711,563).

Regarding Claim 1, Koskas discloses a relational database management system for storing and analyzing network data stored in relational tables that describe a set of nodes and links forming a network wherein each of said nodes represents an object of interest and each of said links represents a relationship between two of said nodes, said system comprising, in combination:

- a generic node table (See Col. 25, lines 60 to Col. 26, line 14, Claims 77, 79) containing a plurality of node table rows each of which contains data describing a given node in said network,

- a generic link table (See Col. 26, lines 16-22, lines 43-56, Figure 9) containing a plurality of link table rows each of which contains data describing a link between two nodes in said network and identifying each of said two nodes and

- an application program interface which enables executing application programs to create said node table and said link table (See Col. 3, lines 1-27, Figures 8-10), to store data describing nodes in said node table, to store data describing links between said nodes in said link table (See

Col. 4, lines 1-58), and to perform a plurality of standard operations (160) on the data in said node table and said link table.

Regarding Claim 2, Koskas discloses that said network is a logical network (See Figures 4-7).

Regarding Claim 3, Koskas discloses that each of said node table rows contains data specifying a node cost attribute associated with said given node and wherein each of said link table rows further contains a link cost attribute associated with a link (See Col. 51, lines 51-59; Col. 52, lines 43-53).

Regarding Claim 4, Koskas discloses that said standard operations include at least one path identification procedure for analyzing the said network data to identify a particular path having one or more stated cost characteristics (See Col. 8, lines 21-33, Col. 51, lines 51-59; Col. 52, lines 43-53).

Regarding Claim 5, Koskas discloses that said standard operations include at least minimum cost path identification procedure for analyzing the said network data to identify the path that has the minimum total cost from a stated start node to a stated end node (See Col. 51, lines 51-59; Col. 52, lines 43-53).

Regarding Claim 6, Koskas discloses that said standard operations include analyzing said network data to identify a path consisting of an alternating sequence of nodes and links having defined characteristics (See Col. 8, lines 63 to Col. 9, line 11).

Regarding Claim 7, Koskas discloses that said system further includes a path table containing a plurality of path table rows each of which contains data describing a path consisting of an alternating sequence of nodes and links (See Figures 1-8).

Regarding Claim 8, Koskas discloses that said standard operations include at

least one path identification procedure for analyzing said network data to identify a

particular path having stated characteristics and for placing information describing said

particular path in one of said path table rows (See Col. 3, lines 54-67; Col. 4, lines 1-58;

Col. 8, lines 63 to Col. 9, line 11, See figures 4-7).

Regarding Claim 9, Koskas discloses that said system further includes a path-

link table containing one ordered set of path-link table rows associated with each given

path described in said path table, each of said path table rows containing information

identifying one link in the sequence of links in said given path. (See Col. 8, lines 63 to

Col. 9, line 11).

Regarding Claim 10, Koskas discloses that said standard operations include at

least one path identification procedure for analyzing said network data to identify a

particular path having stated characteristics and for placing information describing said

particular path in one of said path table rows and for placing information describing the

sequence of links in said particular path in said path-link table. (See Col. 3, lines 54-67,

Col. 4, lines 1-58).

Regarding Claim 11, Koskas discloses that said standard operations include

loading node and link data into said node and link tables respectively from a database

(See Col. 23, lines 43-58).

Regarding Claim 12, Koskas discloses that said network is a spatial network and

wherein each of said node table rows includes a column for storing the identification of a

geometry object, which specifies the shape and location of one of said nodes (See Col. 50, lines 41-58, Col. 51, lines 4-18; Col. 4, lines 10-23).

Regarding Claim 13, Koskas discloses that each of said link table rows includes a column for storing the identification of a geometry object, which specifies the geometry of one of said links (See Col. 50, lines 41-58; Col. 51, lines 4-18, Figures 1-3, 8, 9).

Regarding Claim 14, Koskas discloses that each of said link table rows includes a column for storing the identification of a geometry object, which specifies, the shape and location of one of said links (See Col. 50, lines 41-58, Col. 51, lines 4-18; Col. 4, lines 10-23).

Regarding Claim 15, Koskas discloses that each of said node table rows further contains a level column for holding a hierarchy level (See Col. 7, lines 14-67, Col. 20, lines 41-59).

Regarding Claim 16, Koskas discloses that each of said node table rows further contains a parent column for holding the identification of a parent node within the hierarchy established by said level column (See Col. 53, lines 40-50).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to the application may be submitted by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT".   The official fax number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wilson Lee
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U.S. Patent & Trademark Office

12/22/06